MISSILES

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NSC BRIEFING 21 October 1954

SOVIET GUIDED MISSILES

I. In approaching this ~~complex~~ subject, ~~absolutely~~ necessary make careful distinction between what we know for certain, what we have reason to suspect, and what we don't know, but are trying to find out.

A. First, know that Soviets, after World War II, showed intense interest in German missile experience - took away German experts, some 400 of them: also took away missiles, prototypes, laboratories and plants.

1. By 1950, these Germans being phased out - only some 50, mainly guidance and control specialists, still in USSR now.

B. [redacted] 25X1 NSA

C. Also, know that USSR capable (in terms science, technology, economy) of supporting sizeable missile program.

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D. Have good reason to suspect - [redacted] 25X1 & NSA that many individuals, plants and research organizations in the USSR are now involved in missile research and development program.

1. Facilities apparently involve seven separate Soviet Ministries and supported by Academy of Science.

E. From this evidence, US intelligence community is convinced that USSR has an extensive guided missile program, with result that US and allies face growing threat over next years, (conclusion reached in recent National Estimate). [redacted] 25X1 & NSA

F. However, we don't know particulars of Soviet program - that is, what kinds of missiles the USSR may now have on hand, or under development.

G. Thus, in speaking of specific missiles, we are presenting most tentative estimate.

1. Not based on firm current intelligence.

2. Instead, derived from estimated Soviet military requirements [redacted] 25X1 25X1

3. Thus based, estimate represents intelligence community's "best guess" and views of eminent outside consultants.

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II. Major factor which makes Soviet development guided missiles matter of critical concern is increasing size, efficiency of USSR's nuclear stockpile.

A. Both increased availability nuclear warheads and probable larger yields will make missile attacks increasingly practical.

1. Both factors help counterbalance inherent limitations in missile reliability, accuracy.

III. Another major factor leading USSR to develop missile delivery systems will be the increasing cost of pressing home nuclear attacks with piloted aircraft as US and allied air defences improve.

IV. Community's estimate (chart) shows types of missiles USSR expected develop and probable dates initial availability.

A. Because Soviet electronics and precision mechanisms (gyroscopes, etc.) industries represent bottlenecks, we believe USSR will probably concentrate, during next few years, on production types missiles for which most urgent need felt.

B. Will mention few of these which of particular concern to US.

V. Very high priority will be production of missiles to overcome weakness of Soviet air defense. While repeating caveat that estimate necessarily tentative, we think USSR now has, or soon will have, following defensive missiles:

A. Could now have ready for series production, as "~~ground~~ SURFACE-to-air" weapon, improved type (thirteen-mile slant range) German "WASSERFALL". By 1955, range of this missile

will be increased, and it could be equipped with semi-active radar homing. This approaches our "NIKE" in performance.

B. Probably now have "air-to-air" rocket, infra-red guided, with 2½ mile range. By 1955, could have one with twice range (roughly equivalent our "SIDEWINDER").

VI. Development of offensive missiles also estimated major Soviet concern. Think, for example, USSR would wish the following:

A. Almost certainly want "surface-to-surface" missiles suitable for submarine-launched attack on US and allied coastal areas. Could now have improved (200-mile range) "V-1". By 1955, could have own design jet "pilotless aircraft", with 500-mile range.

B. In "ballistic" (i.e., wingless, supersonic) missile field, will probably develop "family" of short and medium range "surface-to-surface" types over coming years. Could now have and probably will produce either short-range "native design" or improved (350-mile range) "V-2", as counter to allied tactical nuclear capabilities in Europe. However, quantity production more advanced types ballistic missiles will probably await future time, when improved allied air defense will make bombers (presently more reliable) a prohibitively costly means nuclear delivery. Meanwhile, development this "ballistic" family will be essential stage in evolution of ultimate missile threat.

C. This ultimate threat is the inter-continental ballistic missile (IBM). We believe USSR will make concerted effort produce IBM, as counter to expected US production similar weapon and as potentially decisive means attack. Such weapon, with 3,000 lb. thermonuclear warhead and range of 5,500 miles could be ready for series production by 1963, or -

1. If no major delays and all-out effort, this IBM could possibly be ready as early as 1960.

D. By 1963, such a warhead could have a yield of _____.*

1. Advent of IBM means entirely new type of threat to US.

[redacted]

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MISSILES - BACKGROUND

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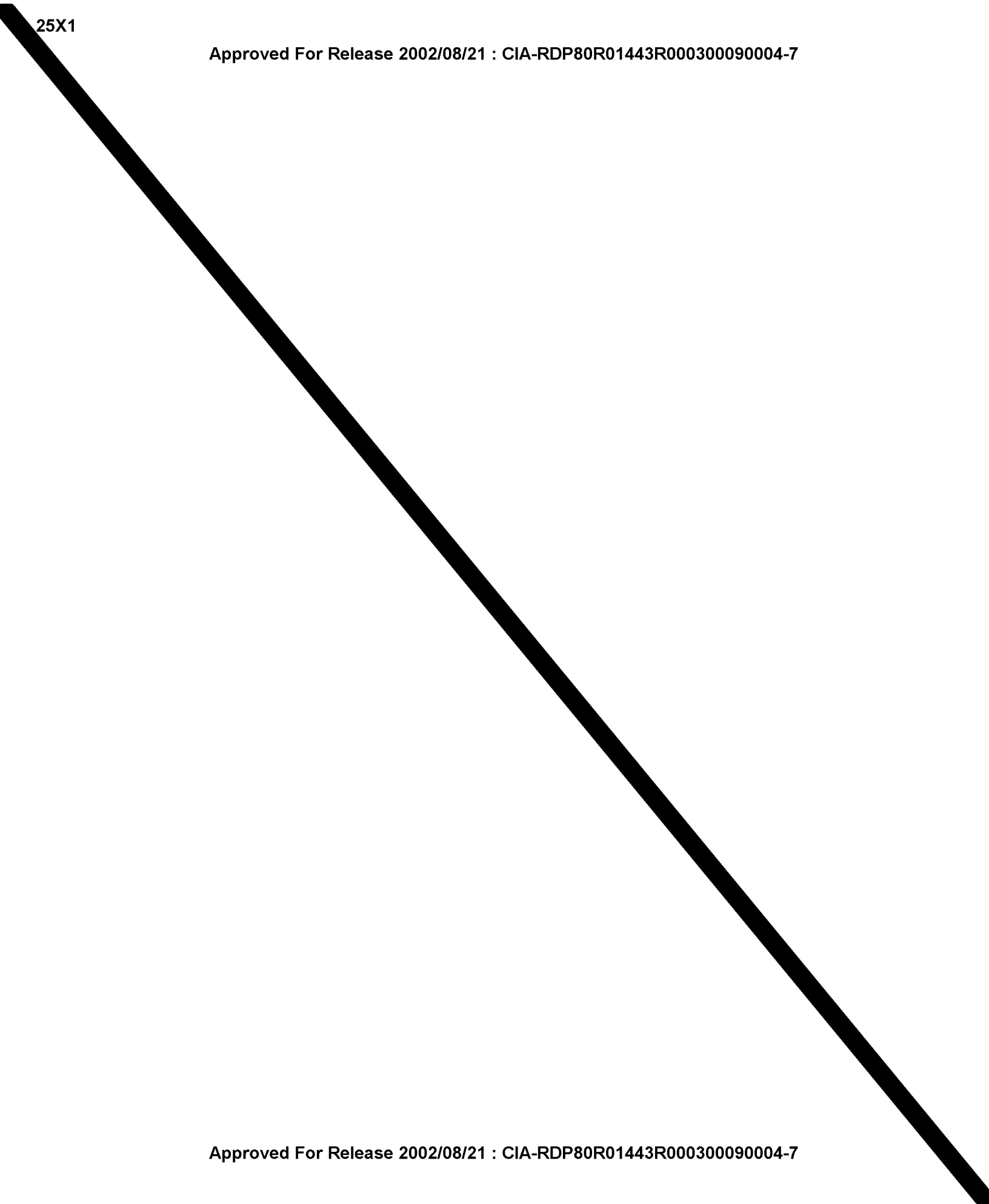

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